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#### ABSTRACT

This report evaluated a four phase environmental sciences program designed to serve 654 students from 23 different fifth grade classes from a Manhattan community school district. Phase cne, a pre-camp educational program in the classroom, was designed to introduce the participating classes to the concepts of environmental sciences which the children would be studying while in camp. Phase two was a four day camp experience in Connecticut. Phase three was a series of projects and reports completed by the children when they returned from camp, detailing their camp experiences. Phase four was an integration of the lessons learned by the camp experience into the life of the children in New York City. The major program objectives were to significantly increase the children's knowledge of environmental science, change their attitudes about environmental concerns to more positive ones, help students utilize their knowledge in defining local environmental concerns, and to help students develop plans to improve their neighborhood environments. The instruments used to evaluate the program objectives were a test of science knowledge constructed by the district science coordinator, the Attitude Development Through Outdoor Education Scale, and a follow-up questionnaire which was completed by participating teachers. Correlated T tests of the first two objectives indicated that the post-test scores were significantly higher than pre-test. scores. Also, follow-up activities suggested that the students brought their experiences back to their neighborhood school districts and were more aware of the environmental concerns in which they lived. The report concluded that all three evaluation objectives were met and produced significant positive findings. The instruments used in the evaluation are included in the appendix. (JP)

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LENOX HILL NEIGHBORHOOD

SCHOOL CAMP PROGRAM

(School Year 1975 - 1976)

Dr. John S. Hicks

Program Evaluator

An Evaluation of Selected New York City Umbrella Programs funded under a Special Grant of the New York State Lesiglature performed for the Board of Education of the City of New York for the 1975 - 1976 school year.

US DEPARTMENT OF HEALTH. EDUCATION & WELFARE NATIONAL INSTITUTE OF EQUCATION

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# Chapter I: THE PROGRAM

program which focused on environmental science concerns. It was designed to serve 720 students from 24 different fifth grade classes chosen from District 2 of the Borough of Manhattan. The program was funded as of March 1, 1976, and ran until June 30, 1976. The goals of the project centered on making fifth grade students from the City of New York more aware of some environmental science concerns; so that they might understand the environment in which they live, and so that they might be more involved in maintaining and protecting the natural resources of their neighborhoods.

The four phases of the project were designed to maximize the impact of this project on the understanding of the children. Phase one, a pre-camp educational program in the classroom, was designed to introduce the participating classes to the concepts of environmental science which the children would be studying while in the camp. This introductory phase was composed of classroom activities which described the camp experience, introduced the children to some of the projects and slides from previous year's groups, and which attempted to motivate the children to look forward to the four, day camp experience.

The second phase of the project was a four day camp experience, located in Bantam, Connecticut. The Camp, the Lenox Hill Camp, was run by the Lenox Hill Neighborhood Association, which was deeply involved in many community activities in District 2 of Manhattan. While the camp itself was in Bantam, Connecticut, the non-profit community association, Lenox Hill, is located in the community in which the children live and go to school.

During the four day camp experience, usually Tuesday through Friday, the students were instructed in a variety of environmental science activities. These activities included nature study through hikes, visits to museums, a saw mill, a farm, a swamp, and a variety of group and individual activities. The program staff included two camp counselors who were responsible for the instruction of the children while in the camp, but the teachers of the children were also involved since they accompanied the children to the camp and participated in all of the environmental science activities.

In phase three, after the children and the teachers had returned to the city, the children produced a variety of projects and wrote of variety of reports detailing their camp experiences, and related their new knowledge about the cycles of nature to the concerns of living in the city. Phase four was the integration of the lessons learned by the camp experience into the life of the children in the City of New York, as exemplified by the development of local ecological projects by the children. These projects would impact on the local neighborhoods in which the children lived, and would be related to the environmental needs of the city.

Students were chosen to participate on the basis that the teachers in the classes had agreed to participate, that is, the teachers had agreed to become involved in precamp experiences which included planning, agreed to accompany the children to the camp for the four day period, and agreed to become involved in the follow-up activities in which the application to the city ecology was stressed. A total of twenty-three classes participated in the project. A total of 654 students out of a projected 720 students participated, thus 91% of the proposed population did participate. Given the late approval of the project, this seemed a high rate of success in this

regard.

One further aspect of the project proposal should be discussed in this section. The camp itself provided very adequate living quarters for the children involved. The daily experiences included regular classroom instruction in an outdoor educational setting which has become standard in many school districts throughout the country. Group living facilities were provided for these fifth grade students, many seemingly away from homes and the city for the first time. The impact of four days of living outside of the city was planned to facilitate the children's learning about their environment.

There were three major program objectives in this project. The first was to significantly increase the children's knowledge of environmental science. The second was to significantly change their attitudes about environmental concerns to more positive ones. The third objective was to help the students utilize their knowledge in defining local environmental concerns, and to help them develop plans to improve their neighborhood environments.

#### Chapter II: EVALUATIVE PROCEDURES

The four major evaluation objectives in this program were:

Evaluation Objective #1: To determine whether, as a result of participation in this environmental science program, the score on a science test of students participating in 60% of the scheduled program sessions will show a statistically significant difference between the pre-test score and the post-test score, on a teacher made science test.

Evaluation Objective #2: To determine whether, as a result of participation in this environmental science camp program, the score on a test of attitudes toward environmental science (the Attitude Development Through Outdoor Education Scale) of students participating in 60% of the scheduled program sessions will show a statistically significant difference between the pre-test scores and the post-test scores.

Evaluation Objective #3: To determine whether, as a result of participation in this environmental science camp program, the pupils will give evidence of the utilization of their new skills and attitudes, in that 60% of the classes involved will be participating in either the planning or implementation of local environmental projects.

Evaluation Objective #4: To determine the extent to which the program, as actually carried out, coincided with the program as described in the Project Proposal.

The instruments used in the program varied with each of the program objectives. For the first evaluation objective, a test of science knowledge was constructed by the District Science Coordinator, who had worked with the project in previous years when the project was not supported by Umbrella funds. This coordinator was familiar with the fifth grade science curriculum, and with the camp activities. Seventy questions were developed, randomly separated into two groups of 35 questions each, and two forms were constructed. Half of the students received form A on a pre-test basis, and half of the students received form B on a pre-test basis. The post testing called for using the form which the students had not used on the pre-test.

While there was no normative data to validate the test, the results suggested that it was probably an appropriate instrument. The means on Form A and Form B were within one point of each other. The mean scores on the tests were 53 on the pre and 58 on the post test. The test, including thirty-five objective items, seemed comprehensive enough to use in the evaluation. Pre-testing of all classes which participated in the program was done approximately two weeks prior to the camp visit, and post-testing was done approximately two weeks after the class had returned to the city.

Since the program had begun before the evaluation consultant had been hired, the project did not test the first six classes to participate.

Pre-testing did not begin until the evaluator had helped construct the science test. Consequently, there were only a total of 477 students who could have taken the science test on a pre and post basis. In actuality, a total of 446 students took the pre-test and a total of 371 students took the post test, which means 93.5% took the pre-test and 77.7% took the post test;

The instrument used relative to the second objective, a change in attitudes toward environmental education, was the Attitude Development` Through Outdoor Education Scale, constructed by Robert E. Millward at Pennsylvania State University. This scale did not provide any normative data, and furthermore, the scale included many obvious duplications of items. Consequently, the scale was revised so that duplicate items were deleted, and two randomized forms were constructed, each having 20 items.

The scale was applied on a pre and post-test basis. The classes were administered one form on a pre-test basis and the other form on a post-test basis. Inspection of the data from the pre-testing indicated that the two forms had means within one point of each other out of a possible. 100 points, and adjustments were made on one of the forms to compensate for these differences.

Since the program had begun before the evaluation consultant had come on the project, eight classes were not tested with this instrument. A possible 418 students might have been tested using this attitudinal instrument. Three hundred ninety-three students were tested on a pre-test basis, and three hundred forty students were post-tested using this instrument. Thus 94.0% of the pre rests were available and 81.3% of the post tests were available.

To complete the analysis of objective #3, a follow-up questionnaire was constructed. The teachers of each class which participated were asked to indicate the types of projects that had developed since the class had returned to the city. Thus it was possible to determine the percentage of classes in which projects had been developed upon the return of the class to the neighborhood environment. A total of sixteen of the twenty-three classes that participated in the camp program completed this survey.

For the first two evaluation objectives, a correlated t test was run between the pre-test mean and the post-test mean for the total groups tested. Thus with the science test and the attitude test a "Pre-Test/
Post-Test (no control) Design" was used for the analysis of the data.

Significance was established at the .05 kevel for both analyses. For the third evaluation objective an inspection of post camp experience surveys was used to determine the percentage of schools in which significant projects had been attempted after the camp experience.

There appeared to be a direct impact on the collection of the data by one major factor. This was the late funding of the project, in warth of 1976, which gave very little or no time for preplanning. Consequently, six classes or 177 students (27%) were not tested using any of the instruments for the first or second evaluation objective. If approval had come during the fall of 1975 there would have been time to pre-test all children as well as time to construct the instruments prior to the date on which the first group attended camp.

#### Chapter III: FINDINGS

Objective #1 related to the increase of student knowledge of concepts and facts about environmental science as it pertains to the fifth grade science curriculum. Students were pre and post tested using a teacher made test of facts and objective questions. Table 1 presents the data on this first evaluation objective.

Table 1 - Summary of Data on the Teacher Made Science Test; Scores Reported as Percentiles.

Group	N	Group Means	Value of 't', 'Pre to Post	Level of  Significance
All Pre Tests	446	53.13 %	+ 5.540	.01
All Post Tests	. 371	58.28 %	•	

Table 1 presents the evidence relative to the test of environmental science which was given to evaluate objective #1. It can be noted that there is a positive shift of approximately five (5) percentage points from pretesting to post-testing. This shift is significant at the .01 level. For this reason it would seem appropriate to assert that significant growth in the knowledge about the environmental concerns which were built into this project did indeed occur. Of the total number of students in the project, 93.5% took the pre-test and 77.7% took the post test.

from pre to post over a range of approximately five percentile points.

While efforts were made to randomize the application of these tests, and to randomize the items of the forms of the tests, there is no normative data with which to compare these tests. It is impossible to ascertain

whether a mean of 53% right on the pre-tests put the students who participated in the project in the 5th, 50th, or 95th percentile group when compared with all fifth graders in the District, the City of New York, or any other normative group. What it did indicate was that the instrument was neither too simple nor too difficult for the students in the project.

Objective #2 focused on the task of changing the students' attitudes toward environmental science through this project. To measure the student's attitude toward ecological concerns and towards certain environmental factors, a published scale was administered. The testing of the children with this scale, the Attitude Development Through Outdoor Education Scale, provided data on a pre and post basis for many of the students in the project. This data is presented in Table 2.

Table 2 - Summary of Data on <u>Attitude Development Through Outdoor</u> <u>Education Scale</u>, Scores Reported as Percentiles.

•		♥ . Group	Value of 't',	Level of
Group	N '	Means	Pre to Post	Significance
All Pre Tests	393	65.25	+ 2.712	.01
All Post Tests	340	66.89.	• • •	

Table 2 above presents evidence that the group of students who were post tested had significantly higher post tests than the group of students who participated in the pre testing. The results were significant at the .01 level indicating that the results would happen one time in a hundred by chance. However, the group means are relatively close, 65.25% as opposed to 66.89% on the instrument used. This does not represent a very strong shift, even though it is significant. The significance would appear to be a function of a relatively large sample size and a small amount of variance in this

group of data.

While the evidence from both of the first two objectives was positive and significant at the .01 level in each case, it should be noted that the shift in science information would appear to be more important. It must also be noted that the attitudinal scale did not provide any normative data. The manual presented data relevant to three factor analyses of data which occurred during the development of the instrument but did not give any norms for any age groups of children. Thus, as with the science test, the data on the attitudinal instrument could not indicate whether the students participating in this project had a "typical" attitude toward ecological concerns when compared with other fifth grade students. It is possible, for example, that the shift from the mean of 65.25 to 66.89 would represent a five percentage point shift on a normative sample of all fifth grade students in the City. of New York.

Objective #3 concerned an analysis of the impact of this program on the students once the camp experience had concluded. It represented evidence that the children worked on projects in their schools once they returned to their neighborhoods, or planned to work on projects in their school district which could be considered environmentally productive. The data which was collected for this objective was taken from a follow-up survey administered to the teachers who participated in the project. Table 3 presents the data on this aspect of the program.

Table 3 - Summary of Data on Follow-Up Survey Relating to Evaluation Objective #3.

		# of Classes Responding to	# of Classes Responding	% of Classes √Responding -
# of Classes	Participating	Questionnaire	Positively	'Positively
23	. • :	16	16 "	69.6 %

69.6 %

Table 3 presents the data which was collected on objective number three, relating to the follow-up after the camp program. As can be seen, all of the classes which returned the questionnaire reported significant activities which the teachers attributed as carry-over from the camp experience. Since evaluation objective #3 required that 60% of the classes would report positive data, it should be noted that the data surpassed that level.

In general, this program evaluator would rate both the facilities and the materials in the project as more than adequate to meet the needs of the project. The resources which were made available at the camp were excellent, and included a wide variety of activities and materials which allowed the students to work on almost any aspect of the environmental science curriculum which might have attracted him or her. From this evaluator's personal observation of two days at the camp program, it would seem that many different projects or aspects of projects were all going on at the same time. Some of the students would be engaged in collecting specimens, others would be reading or writing reports.

A note about the human resource of this project would be appropriate at this point. The project appeared very fortunate to have the services of two exceptionally fine counselors who had a background in environmental science. These counselors worked exceptionally well with the fifth grade classes, and also seemed to recognize the need to bring in the regular class-room teacher as a part of the camp process so that the activities would continue once the children returned to the city. It was also quite obvious that the project had the cooperation of the teachers involved who agreed to live in the camp dormitory from Tuesday to Friday with the children in their fifth grade classes.

It would be the judgment of this evaluator that the project is indeed serving the needs of the specific target population for which it is designed. The letters and follow-up projects would indicate that the material was new to the great majority of children, and that many new skills were learned. Since this year was the first year under the fiscal support of the Umbrella program, there were no recommendations from prior project evaluations which should be considered at this time. It was the understanding of this evaluator that this project began several years ago, and had been funded as a special project for several years by District 2, but had been cut from the budget this year due to the extreme nature of fiscal problems in the New York City schools.

There are many areas of the project which more than met the specifications of the project proposal. It would seem that the intent and objectives of the components of the project proposal were more than implemented. Indeed, this seemed to be a very vital and enthusiastic program, and the elements in the project proposal were more than present. The program staff seemed highly concerned with the individual students involved, and seemed to be dedicated to the success of the project to a degree which made the community, proud of their efforts.

If there was one area which raised concern on the part of this evaluator, it was the description of the four phases of the total project.

From the description in the original proposal, the evaluator could not judge, whether some of the aspects of all four phases were being implemented.

Perhaps at times it seemed that some of the aspects of phases one, three and four were left to the classroom teacher when it might have been better to structure more closely these activities. The camp experience, phase two,

was superbly planned and implemented.

# Chapter IV: SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The data which was collected for this project supports its value to the students involved. All three evaluation objectives were met and produced significant positive findings. The students presented more positive attitudes and more information about ecological concerns and environmental science. The follow-up activities suggested that the students brought their experiences back to their own neighborhood school district and became involved in activities which should produce greater awareness and concern about the environment of the city in which they live.

Given the amount of positive data which was generated in this project, and the observed success of the program, it would be the very strong recommendation of this evaluation consultant that the program be continued. The program appeared to be very appropriately planned and implemented, and appeared very relevant to the needs of the students in the city school district in which the project was originated.

While the project was considered successful, this evaluator would like to make several recommendations which would help to strengthen certain aspects even further. This is not to say that the project had serious problems, since it did not appear to have any. What appeared to be necessary were more refinements than basic changes, which would make this an exemplary kind of project in the area of environmental or ecological concerns.

1. The instruments used in the study, both the science test and the attitudinal scale, need to be standardized using the children la the district as a frame of reference. Perhaps in the fall of 1976 the fifth grade students

in the district, or at least a stratified random sample representing the fifth graders, could be taken. Norms could then be established, and the students' responses to the instruments could be interpreted with meaning.

It might also be possible to attempt to select, after such a study was completed in the fall, those classes of students whose test scores seem to present evidence of either little information about environmental concerns, or poor attitudes toward ecological concerns as the major group of participants in the project. While this would not be true in all cases, it might provide a basis for selection and a normative reference group at the same time.

2. The testing which was done in the project, given the possibility that the project might be notified earlier of its funding, should include a larger percentage of those students in the sample. The fact that the post-testing was being done in the first and second week of June this year probably did not help the accumulation of data. Several schools did not provide post data. While every effort was made to contact these schools and these teachers by the Lenox Hill coordinator, Mr. David Stern, several schools did not provide post-test data in time for it to be included in the sample. Given the time constraints of this project, the amount of data collected seemed reasonable to this evaluator.

Perhaps written into the project should be the assurances that the central district office would collaborate with the Lenox Hill coordinator to insure the collection of data. This suggestion is offered, knowing that such a successful program can easily be criticized because of a seemingly incomplete data sample, and it is hoped that future evaluators would have complete sets of data to work with.

3. There appears to be a need for an organized, structured in-service

type of training experience for the teachers who participated in the program. This relates to the fairly ambiguous description of phases one, three and four of the project which dealt with the preparation as well as the follow-up of the program. Perhaps monies should be allocated to allow the district science supervisor to establish a series of workshops which would help the teachers who had not previously participated. A document which would describe some common curriculum elements usually covered, or covered by most of the classes which participated this year, might be a goal of such a set of workshops. The focus of the workshops should also attempt to structure the post-camp experience so as to maximize the impact of this very fine program on the local environmental concerns.

It might also be suggested that one way of preparing the future year's students for the camp experience might be through the use of the students who participated this past year. Combined class activities might be a natural way of introducing the pre-camp phase to the new fifth grade classes. Also seemingly very successful this year were the local high school students who accompanied the classes to the camp program and helped as volunteers in the program.

4. If possible, and if increased funding was a reality, a fourth recommendation would be to add an additional counselor to reduce the teacher-student ratio at the camp, and so that these very competent young people could become involved in the workshops for teachers and with the pre-camp preparation phase with the children. Phase one might require the counselors to spend more time with the classes before the students went to the camp.

Again, this project receives a very strong endorsement for continued funding.  $\qquad \qquad 18$ 

# Chapter V: APPENDICES

On the succeeding pages are found copies of the three non-standardized instruments used in the program. Since there was such a similarity
between Form A and Form B of the Science Test, only Form A is reproduced
in this report. Since there was such a similarity between Form 1 and Form
2 of the Attitude Scale, only Form 1 is reproduced in this report. Persons
interested in securing copies of Form B of the Science Test, or of Form 2
the Attitude Scale should contact Mr. David Stern, Associate Director,
Lenox Hill Neighborhood Association, 331 East 70 Street, New York, N.Y.

#### APPENDICES

1.	Science Test,	Form A .	••••	•		•••••	• • • • • •	.page	18a.
2,	Environmental	Attitude	Scale,	Form 1		,	·	.page	18g.
			÷ .		٠,٠	4	*		
2	Doot Manchay			•					10:

·	, FORT - A	
NAME	SCHOOL	
CLASS	DATE	•
	. ,	
Read each question carefully. P	ick your answer. Draw a c	ircle around your answe
In some questions you will be as	ked to write the answer.	
1. All living things		,
(a) crawl	,	•
(b) run		<i>,</i> .
(c) fly		
(d) grow	4	. ,
2. The best way to make an image	ce look clear when you are	using a microscope is
•		doring a magazocope 15
		, ,
(b) move the mirror sideway	ys ·	·
(c) move the slide		
(d) move the mirror up and	down .	* * *
3. Which instrument would you	use to measure air pressur	e?
(a) thermometer ·		
(b) wind vane		
· (c) anemometer		
(d) barometer		
4. Which of these pieces of gl	ass would you use to make	something look bigger?
(a)		
(b)		
(c)		.4
		. '2
(d)	7	)

5. Fog is most like

(a) snow

(b) hail

(d) rain

(c) clouds

21

- 6. A tree which keeps its leaves in winter is the
  - (a) Maple
  - (b) Sycamore
  - · (c) Hemlock
  - (d) Elm
- 7. Which of these can be seen in a drop of water from a fresh water pond?
  - (a) brine shrimp
  - (b) earthworm '
  - (c) algae
    (d) yeast
  - . What is there in the city that is most like a village green?
  - (a) a school playground

(c) a shopping center

- (b) an empty lot
- 47
- (d) a park with grass and trees
- 9. Energy for photosynthesis comes from
  - (a) foed
  - (b) sunlight (c) chlorophyll
    - (d) oxygen

(a) cars

- 10. The chief cause of air pollution in a city is
  - . . . . . . . . .
  - . (b) burning leaves
  - (c) factories(d) burning fuel in homes
- 11. A fresh water aquarium is most like
  - ₹ ((a) a river.
    - (b) an ocean
  - (c) a pond

(d) a bay

22

- 12. In order to produce food, green plants combine
  - (a) oxygen and nitrogen
  - (b) oxygen and carbon dioxide
  - (c) water and carbon dioxide
  - (d) water and nitrogen
- 13. An aquarium tank contains water, gravel, a green plant, a fish and a snail.

The water gets oxygen from the air and from the

- (a) gravel
- (b) green plant
- (c) fish
- (d) snail
- 14. Even though oxygen is used by all living things, the amount of oxygen in the
  - atmosphere remains the same because

    (a) animals must have oxygen to live
  - (b) the oxygen molecules in air multiply themselves
  - (c) green plants give off oxygen
  - (d) the sun's gases explode and make more oxygen
- 15. Green plants are different from most other living things because they
  - (a) make their own food
  - (b) grow rapidly
  - (c) contain many kinds of cells
  - (d) take in oxygen and give off carbon dioxide
- 16. If a cross section which is cut from the bottom of the trunk of a diving free
  - has 40 annual rings, the age of theftree
    - (a) is 40 years
    - (b) is less than 40 years
    - (c) is much more than 40 years
    - (d) cannot be determined.

- 17. An animal gets energy from food. What is the original source of the energy?
- (a) water
  - (b) sunlight
  - (c) carbon dioxide
  - (d) soil
- 13. You are most-likely to find mosquitoe larvae
  - (a). on milkweek flowers
  - (b) in a pond
  - (c) under a log
  - (d) in the soil
- 19. A snake's skin usually feels
  - (a) wet
  - (b) dry
  - (c) slimey
  - (d) sticky
  - 4 4
  - (a) water
    (b) boil
  - (c) space
  - (d) . light
- 21. Water freezes at
  - (a) 98.6° F
    - (b) 212° F
    - (c) 32° F
    - (d) 0° F
  - The food of an owl is mostly
    - (a) seeds

(d) wild berries

- (b) insects
- (c) mice and other small animals

Most plants cannot grow under the trees in a forest because there is too little

- (a) lenses
  - (b) a mirror
  - (c) a tube

(d) clips

- Which clouds would you expect to see when the weather is fair?
  - (a) cumulus
  - (b) nimbus
- (c) stratus
- (d) thunder

(a) .frogs

- 25. If you turn over a rock in the woods you are most likely to find
  - (b) centipedes
  - (c) grasshoppers
  - (d) mealworms
  - 26. Which of these can make its own food
    - (a) ant
    - (b) algae
    - (c) mushroom
    - (d) frog
- 27. One kind of food which land turtles eat is
- (a) fish
  - (b) berries
    - (c) mosquitoes
  - (d) mice
- 28. A cattail plant usually grows at the edge of a

25

- (a) pond
- (b) forest
- (c) hillside

(d) meadow

29. Many acorns are on the lawn. What tree would you expect to find on or near

the lawn?

- (a) maple
- (b) elm
- (c) oak
  .(d) pine
- ). It is cooler near a lake in summer because soil
  - (a) cools off faster than water
  - (b) cools off as fast as water
    (c) cools off slower than water
- (d) warms up slower than water
  - (a) a satellite

31. Our moon is

- (b) a planet
- (c) an asteroid
- (d) a star
- ,
- (a) a hole in a tree
- (b) a hole in the ground(c) a nest on the ground
- (d) a nest on a branch of a tree

The summer home of a squirrel is usually

- 33. The seeds of a maple tree are spread by
  - (a) animals
  - (b) wind
  - (c) water
    (d) man
  - 34. A cow is a manmal because it
  - 54. A COW IS & MANIMAL DECARSE
    - (a) has four legs(b) lives on land
    - (c) feeds its babies with milk

NAME:	CLASS:	
DATE:	SCICOL:	. '

The statements on the next few pages are about different things in the outdoors. The way you answer the statements will help your teacher know what you
like and don't like about the outdoors. You show the way you feel about a state
ment by indicating how much you agree or disagree with it. Here is an example:

1. I enjoy going fishing

SA A (1) D SD

You simply circle one of the five signs on your answer sheet according to.

how YOU FEEL ABOUT THE STATEMENT. The five signs mean this:

SA You strongly agree or strongly like it \_\_\_\_\_

- A You agree or like it a little bit
- U You are undecided or don't know if you like it or not
- D You disagree or don't like it
- SD You strongly disagree or strongly dislike it.

In the example above, the person was undecided about fishing so he can be Now you try to do these.

2. Going to the beach in summer is fun SA A U D

If you like the beach you should have answered SA or A. If you don't like it,  $\underline{D}$  or  $\underline{SD}$ ; if you are not qure,  $\underline{U}$ .

3. I don't like to play baseball. SA A I

SA A U D SD

If you like to play baseball you should have disagreed with  $\underline{3}$  and circled  $\underline{50}$  or  $\underline{D}$ . If you don't like baseball you agree with  $\underline{3}$  and should have circled  $\underline{5A}$  or  $\underline{E}$ :

Go to the next page, read each statement corefully and circle one of the five signs on your Questionnaire according to how you feel about the statements. Itsis very important to give a truthful answer for this is how we can tell which activities children like and dislike.

THIS DOES NOT HAVE ANYTHING TO DO WITH YOUR SCHOOL GRADES. Please answer all statements.

SD

SD .

SD

D

D

D

D

SA A

SA A

- SA A

CA

SA

SA- A

S.A

SA A

U

Form 1

Undecided or don't know Strongly agree

- Hunting is a way to keep the animal population balanced.
- Spiders are helpful to man.

nature & conservation.

- If a forest is managed properly no trees should be cut.
- A person should not have to spend time learning about the outdoors if he is not interested in it. 4
- Snakes are helpful to the environment.

Classes should spend more time studying

- Hunting should not be a year round sport.
- Nature hikes are not exciting. I am not interested in looking at stars,

It is hard for a group of classmates to agree with one another when planning

10. Nature exploration doesn't interest me.

activities.

12.

- 11. It is worth getting up early in the morning to see a sunrise.

	· · · · · · · · · · · · · · · · · · ·			Strongly afree	Agree a little bit	Undecided or don't.	Disagres a little ba	
			•					

13.	there is little that one	person can					
4	do to stop pollution,	4	SA	Α	ับ	D	SD
	*					•	

14. Most pollution is caused by factories.

- 15. It is hard to make new friends at camp. SA 'A U D SD
- 16. Sewage disposal plants will solve the problems of water pollution. SA A U D SD
- 17. We don't have to worry about the future of our environment since scientists can solve our environmental problems.

  SA A U D SD
- 18. I prefer being by myself in the outdoors. SA A U D SD
- 19. People living in cities do not have
  to be concerned about the outdoor environment. SA A U D SD
- 20. People exaggerate when they say that pollution is bad. SA A U D SD

### DISTRICT II - LENOX HILL SCHOOL CAMP PROGRAM . Teacher Survey 4

SCHOOL

- 1. What suggestions can you offer in relation to the physical arrangements of the camp?
- 2. Was the food satisfactory?
- 3. What are your reactions to group, living at the camp?
- 4. Did you receive cooperation from other staff members?
- 5. Did you feel you could use more inservice education before you go to camp?
  - 6. What particular problems arose in your class?
  - 7. What was the most important thing you learned about your students?
  - 8. Did any classroom problems appear to improve in the camp situation? If so, what kinds?
  - 9. What did you enjoy most about the program?
  - 10. What phase did you dislike?
  - 11. Do you think we should continue the resident program next year?
  - 12. What suggestions can you offer in relation to the program?
  - 13. Did your class use the mapping and other environmental educational materials developed by the Council on The Environment? \_\_\_\_\_\_ no. If yes, when did you use it in relation to the trip? \_\_\_\_\_ before, \_\_\_\_ after, \_\_\_ both
- 14. Do you feel the material gave your students a heightened awareness of their local environment?

- 15. Did your class exhibit any projects related to the school-camp program at your school? Describe briefly.
- 16. Did your students have any opportunities to apply the environmental concepts learned in the program to their local environment?

  If so, how?